

Amendments to the Claims

Please amend the claims as in the following listing:

1 and 2. (Canceled)

3. (Currently Amended) The device of claim 38, 2, wherein at least one of the tips has a free end with a generally conical shape; wherein the free end is a protruding end that protrudes from the curved conductive shell when the tip is coupled to the tip mount.

4. (Original) The device of claim 3, wherein at least another of the tips has a free end with a generally hemispherical shape.

5-9. (Canceled)

10. (Currently Amended) The device of claim 38, 4, wherein the electrical connection is a connection between the conductive shell and the central rod.

11. (Original) The device of claim 10, wherein the electrical connection includes a variable impedance unit.

12. (Original) The device of claim 11, wherein the impedance (resistance) of the variable impedance unit is a function of a voltage difference between the conductive shell and the central rod.

13. (Original) The device of claim 12, wherein the impedance decreases at at

least one point as the voltage difference increases.

14. (Original) The device of claim 12, wherein the electrical connection includes a transorb in parallel with a resistor.

15. (Currently Amended) The device of claim 38, 4, wherein the shell has an oblate spheroidal shape.

16. (Original) The device of claim 15, wherein the shell is an upper half of an oblate spheroid.

17. (Original) The device of claim 15, wherein the shell has a height of from about 0.25 to 0.5 times a diameter of the shell.

18. (Currently Amended) The device of claim 38, 4, wherein the shell is a stainless steel shell.

19. (Original) The device of claim 18, wherein the stainless steel shell has a thickness of at least about 3 mm.

20. (Currently Amended) The device of claim 38, 4, further comprising an insulating support connected to both the conductive shell and the central rod.

21. (Original) The device of claim 20, wherein the insulating support is vented.

22-36. (Canceled)

37. (Currently Amended) The device of claim 38, ~~9~~,
wherein the electrical connection is a connection between the conductive shell
and the central rod; and
wherein the electrical connection includes a variable impedance unit.

38. (Currently Amended) A lightning protection device comprising: ~~The device of~~
~~claim 9,~~

a grounded central rod, wherein the central rod includes a tip mount at one end;
a conductive tip coupled to the central rod at the tip mount;
a curved conductive shell capacitively spaced from the tip and the central rod,
with an annular gap between the conductive shell and the tip that functions as a spark
gap; and

an electrical connection joining the conductive shell to ground;
wherein the conductive tip is one of a set of tips that may be coupled to the tip
mount of the central rod, wherein the tips impart different electrical characteristics to the
lightning protection device;

wherein the set of tips includes tips with different diameters, thereby producing
annular gaps of different widths when coupled to the tip mount;

wherein the set of tips includes tips with different radii of curvature at free ends
opposite ends for coupling to the tip mount;

wherein the set of tips includes at least three tips with unique diameter-radii
combinations;

wherein each of the tips has a unique radius of curvature;

wherein each of the tips has a unique diameter; and

wherein the tip set includes:

a first tip having a first radius of curvature, and producing a first annular
gap when coupled to the tip mount;

a second tip having a second radius of curvature, and producing a second annular gap when coupled to the tip mount; and

a third tip having a third radius of curvature, and producing a third annular gap when coupled to the tip mount;

wherein the first radius of curvature is less than the second radius of curvature;

wherein the second radius of curvature is less than the third radius of curvature;

wherein the first annular gap is greater than the second annular gap; and

wherein the second annular gap is greater than the third annular gap.

39. (Previously Presented) The device of claim 38, wherein the tip set includes:

wherein the first radius of curvature is from 2 mm to 5 mm;

wherein the first annular gap is from 4 mm to 6 mm;

wherein the second radius of curvature is from 4 mm to 9 mm;

wherein the second annular gap is from 3 mm to 5 mm;

wherein the third radius of curvature is from 8 mm to 18 mm; and

wherein the third annular gap is from 2 mm to 4 mm.

40. (Currently Amended) The device of claim 39, wherein the tip set includes:

wherein the first radius of curvature is 3 mm;

wherein the first annular gap is from 5 mm;

wherein the second radius of curvature is 6 mm;

wherein the second annular gap is from 4 mm;

wherein the third radius of curvature is 12 mm; and

wherein the third annular gap is from 3 mm.